

**Electro Chemicals Division**  
Diamond Shamrock Corporation  
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**Diamond Shamrock**

**GENERAL INFORMATION**

Liquid Caustic Soda is a clear, corrosive liquid with no distinct odor.

# Data Sheet

340B

## I PRODUCT IDENTIFICATION

MANUFACTURER'S NAME DIAMOND SHAMROCK CORPORATION	REGULAR TELEPHONE NO. EMERGENCY TELEPHONE NO.	Contact Local Sales Office 216-357-7070
ADDRESS Divisional Technical Center, P. O. Box 191, Painesville, Ohio 44077		
TRADE NAME CAUSTIC SODA - Liquid		
SYNONYMS Sodium Hydroxide; NaOH		

## II HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	%	HAZARD DATA
SODIUM HYDROXIDE	50	PEL* = 2.0 mg/m <sup>3</sup> for 15 minutes
*OSHA Permissible Exposure Limit (PEL)		

## III PHYSICAL DATA

BOILING POINT, 760 MM HG 143°C	MELTING POINT	FREEZING POINT 12.1°C (54°F)
SPECIFIC GRAVITY (H <sub>2</sub> O=1) 1.54 @ 15.6°C	VAPOR PRESSURE 13 mm Hg @ 60°C	
VAPOR DENSITY (AIR=1) Not applicable	SOLUBILITY IN H <sub>2</sub> O, % BY WT. Completely soluble	
% VOLATILES BY VOL. Not volatile	EVAPORATION RATE (BUTYL ACETATE=1) Does not apply	
APPEARANCE AND ODOR Clear - no odor		
pH 7.5% solution has pH 14		

EC-LC-6c

All information, recommendations and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Diamond Shamrock Corporation as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Diamond Shamrock Corporation assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

<b>IV FIRE AND EXPLOSION DATA</b>			
FLASH POINT (TEST METHOD)		AUTOIGNITION TEMPERATURE	
None		Nonflammable	
FLAMMABLE LIMITS IN AIR % BY VOL.		LOWER	UPPER
		Nonflammable	Nonflammable
EXTINGUISHING MEDIA			
Use carbon dioxide, "alcohol" foam or dry chemicals in areas where caustic soda is stored. Caustic soda is nonflammable.			
SPECIAL FIRE FIGHTING PROCEDURES			
Pressure-demand, self-contained respiratory protection and protective clothing should be worn by firefighters in areas where caustic soda is stored. Caustic soda is nonflammable.			
UNUSUAL FIRE AND EXPLOSION HAZARD			
None			
<b>V HEALTH HAZARD INFORMATION</b>			
HEALTH HAZARD DATA PEL = 2.0 mg/m <sup>3</sup> for 15 minutes. Acute LC <sub>50</sub> > 0.018 < 0.20 mg/L; Acute LD <sub>50</sub> = 140-340 mg/kg (oral - rat) Acute LD <sub>50</sub> = 1,350 mg/kg (dermal - rabbit)			
ROUTES OF EXPOSURE			
Caustic soda is a corrosive material.			
INHALATION			
Airborne concentrations of dust, mist, or spray of caustic soda may cause damage to the upper respiratory tract and even to the lung tissue proper which could produce chemical pneumonia, depending upon severity of exposure.			
SKIN CONTACT			
Caustic soda is destructive to tissues contacted and produces severe burns.			
SKIN ABSORPTION			
See "Skin Contact" above.			
EYE CONTACT			
Caustic soda is destructive to eye tissues on contact. Will cause severe burns that result in damage to the eyes and even blindness.			
INGESTION			
Caustic soda can cause severe burns and complete tissue perforation of mucous membranes of the mouth, throat, esophagus, and stomach if swallowed.			
EFFECTS OF OVEREXPOSURE			
ACUTE OVEREXPOSURE			
Burns; resulting in frequently deep ulceration and ultimate scarring.			
CHRONIC OVEREXPOSURE			
The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis. Similarly, inhalation of spray or mist may result in varying degrees of irritation or damage to the respiratory tract tissues.			
EMERGENCY AND FIRST AID PROCEDURES <b>Object is to Seek Medical Attention Immediately.</b>			
EYES Immediately flush eyes with large amounts of water for at least 15 minutes holding eyelids apart to ensure flushing of the entire eye surface. Washing eyes within 1 minute is essential to achieve maximum effectiveness. Seek medical attention immediately.			
SKIN Immediately wash contaminated skin with plenty of water. This may be followed with a rinse with vinegar or dilute acetic acid (3% solution) if available. Remove contaminated clothing and footwear and wash clothing before reuse. Discard footwear which cannot be decontaminated. Seek medical attention immediately.			
INHALATION			
Get person out of contaminated area to fresh air. If breathing has stopped, artificial respiration should be started. Oxygen may be administered, if readily available. Seek medical attention immediately.			
INGESTION			
If swallowed, DO NOT induce vomiting. Give large quantities of water. If available, give several glasses of milk. Never give anything by mouth to an unconscious person. Seek medical attention immediately.			
NOTES TO PHYSICIAN			